

Apr 16 2009  
11:40PMUNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK

CITY OF NEW YORK,

Plaintiff,

**DECLARATION OF DAVID  
B. TERRY, P.G.**

-against-

MDL No. 1358  
(Case No. 04-Civ-3417)

AMERADA HESS CORP. ET AL.,

Defendants.

Master File C.A. No.

1:00-1898 (SAS)

I, DAVID B. TERRY, pursuant to 28 U.S.C. § 1746, declares as follows

1. I am a Senior Vice President of the groundwater consulting firm Leggette, Brashears & Graham ("LBG") and have been employed with LBG for 20 years. I make this declaration based on personal knowledge. If called to testify to the matters below, I could and would do so.

2. My qualifications and background are described in the expert reports previously submitted in this case. I am submitting this declaration to respond to criticisms made by the defendants in this litigation that I changed either my methodologies or opinions in this matter between my initial report and my rebuttal report. As explained more thoroughly below, with the exception of minor corrections, all of the "changes" identified by the defendants' lawyers were my responses to criticisms expressed by defendants' experts. That is, defendants' experts criticized my initial report on the basis that I failed to consider certain matters, made incorrect assumptions, or otherwise incorrectly performed the tasks that led to my opinions. In

my rebuttal, I simply addressed those criticisms by seeing whether they made any difference to my opinions. They did not.

3. I was asked by the City to provide opinions and testimony on the potential future MTBE impact which could be expected to occur in the future at the Station 6 well cluster (Wells 6, 6A, 6B, 6D, and 33) and in five individual wells selected by the defendants in this lawsuit (5, 22, 26, 39, and 45) to provide an appropriate basis of design for potable water treatment at these locations. On February 6, 2009, I submitted an expert report that fully disclosed the opinions and underlying methodologies that I anticipate testifying to in this matter ("Initial Report").<sup>1</sup>

**A. Summary of Methodologies and Opinions Contained in the Initial Report**

4. Groundwater quality in the Upper Glacial Aquifer in the area of Queens in which Station 6 and the defendants' 5 wells are located has been impacted by MTBE due to past discharges of gasoline to the environment. Many gasoline discharges have been reported, and others have occurred but have not been discovered or reported. While the fact of these gasoline discharges is known, the total volumes of these individual discharges is generally not known, and insufficient information is available to provide reliable measurements of the quantity of gasoline discharged at each site. In order to project future MTBE concentrations which will occur at the subject wells so that appropriate treatment can be designed and constructed, it is necessary to make estimates of extent of the discharges and of the associated MTBE present in the aquifer.

5. As more extensively discussed in the Initial Report, the methodologies I employed to develop my opinions rested on generally accepted groundwater flow and solute transport models. For assessing future concentrations of MTBE at Station 6, I used two

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<sup>1</sup> On February 27, 2009 I corrected a map in my February 6th report that contained some extraneous data points on Figure 5.

independent methods to establish a reasonable distribution of MTBE in the aquifer, and used the transport model to determine the future impact each of these distributions would have at Station 6 wells in the future.

6. The two analyses were both performed using the numerical ground-water modeling code known as MT3DMS. The first analysis ("Analysis 1") used available groundwater quality information for the Station 6 area between 2004, the year in which MTBE was 'banned' in New York, and 2008, the latest year for which water quality data was available. The second analysis ("Analysis 2") was based on the presence and location of known and reported gasoline discharges in the estimated future capture zone of Station 6. The migration of MTBE that likely resulted from known discharge events at these sites was simulated to determine the extent to which MTBE was likely to impact future water quality conditions at Station 6.

7. For assessing the future concentrations of MTBE at each of the defendants' five focus wells, I conducted a modeling analysis using the ATRANS analytical model. While none of the five defendants wells is currently pumping, each defendant focus well is included in the City's current water supply permit and is available to be operated at any time on an emergency basis, such as in drought. Because the purpose of my analysis was to provide a basis for the design of a treatment system at these wells, I utilized a standard Well Head Protection Area ("WHPA") approach to assess potential MTBE concentrations at these wells which assumes that each well is pumped in a steady state condition beginning in 2009.

8. As stated in Section 5.0 of the Initial Report, my opinions with respect to Station 6 are as follows:

- The gasoline additive MTBE is present in the groundwater within the future capture zone of the wells which will supply water to Station 6. Some of the

MTBE present today within the aquifer system will be intercepted by the Station 6 wells in the future when the use of this water supply is resumed in 2016.

- The primary source of the MTBE present in the aquifer system tapped by Station 6 is gasoline leakage and discharge from gasoline stations and refueling systems present within the Station 6 capture zone area.
- Based on the distribution of known MTBE concentrations within the Station 6 capture zone, I have made projections of the potential future migration and distribution of dissolved MTBE in ground water using a computerized numerical transport model (Analysis 1). The results of my projection indicate that the MTBE concentrations at Station 6 when it is reactivated will, more likely than not, reach a peak concentration of 35 ppb, and that the concentration of MTBE will remain at or above 3 ppb until at least 2040.
- Based on the information which is available concerning discharges in the Station 6 capture zone, and by making reasonable assumptions about the volumes of gasoline discharges, the timing of the releases and the migration of MTBE from these discharges to the underlying groundwater, I performed an additional modeling assessment of future potential impacts at Station 6 (Analysis 2). From this assessment, I conclude that MTBE concentrations, will more likely than not remain at or above 3 ppb until at least 2040.
- I conclude that Engineers designing a treatment process for Station 6 should take the above projections into account when developing an appropriate design goal for the system, but that appropriate safety factors and engineering judgment should also be exercised to reflect the possibility of additional sources of MTBE mass that may be present that were not accounted for in this analysis.

9. As set forth in Section 5.0 of the Initial Report, my opinions with respect

to the five focus wells are as follows:

- Wells 5, 22, 39, and 45 are not presently being utilized as water supply sources, but are available and permitted to be used by the City of New York should the need for additional water arise. Known gasoline discharge sites are located within the estimated capture zones of four of these wells. Based on the timing of the discharges and on known water quality information for the discharge sites, MTBE is known to be present or can reasonably be inferred to be present in ground water in the vicinity of these sites. Furthermore, it is reasonable to conclude that, more likely than not, additional gasoline discharge sites, which have not been identified are present within the capture zones of these wells and represent sources of MTBE mass to the groundwater system.

- Based on known and inferred conditions, I conclude that MTBE is likely to be present in the water produced at Wells 5, 22, 39, and 45 in the event that pumping of these wells resumes in the near future. Furthermore, for the purpose of establishing an appropriate treatment process, it would be reasonable and prudent for the treatment plant design engineer to expect and anticipate that the MTBE concentrations might remain at or above 3 ppb at Well 5 until 2027, at Well 22 until 2035, at Well 39 until 2020 and at Well 45 until at least 2040. This is a reasonable projection considering that there will be a range of potential future operating conditions. As such, I continue to conclude that a reasonable engineer designing a potable water treatment plant should consider these projections in developing the design of that plant for MTBE removal at these wells.

10. These opinions and the models and methodology underlying them have remained for all intents and purposes unchanged since the submittal of my Initial Report.

#### **B. Defendants' Reports and My Rebuttal**

11. On March 9, 2009, I received ten reports from defense experts, all of which raised various issues regarding the methodologies I employed and my overall opinions. I responded collectively to these ten reports on March 23, 2009 ("Rebuttal Report"). I understand that defendants now claim that I developed new methodologies and opinions in my Rebuttal Report that were not in any way intended to respond to the criticisms in their ten expert reports. Specifically, I understand that defendants seek to strike §§ 2.0 (3-5) (first full paragraph and last full paragraph), 6.4 (last three paragraphs), 7.1 and 8.0, as well as Tables 2 and 3, and Figures 4 through 11.

12. I strongly disagree with the defendants' claim and stand fully behind the opinions and methodologies set forth in my Initial Report. As explained further below, the modeling simulations used to support my rebuttal report were, in all but one minor instance noted below, designed to respond to specific criticisms made by one or more of the ten defense experts.

(i). *Section 8.2 and Section 3, First and Second Paragraph (Additional Analysis 1 Run with Lower Dispersivity)*<sup>2</sup>

13. Defendants' seek to exclude the Additional Analysis 1 run performed with the dispersivity value of 70 feet. However, the analysis that defendants seek to exclude was performed *solely to rebut comments made by at least three of defendants' ten hydrogeologists* that the original Analysis 1 was invalid because it utilized a dispersivity value of 350 feet, which defendants' experts claimed was too high. For example, defense expert Fletcher Driscoll devoted nearly two pages of his report to arguing that I should have used a dispersivity value between 20 and 70 feet. *See* Report of Fletcher G. Driscoll, dated March 9, 2009, at 51-53; *see also* Expert Report of Thomas Maguire, dated March 9, 2009, at 6, ¶ 6; at 16; Expert Report of Nicole T. Sweetland, dated March 9, 2009, at 14-15. Dr. Driscoll claimed that the dispersivity value I used – 350 feet – resulted in exaggerated MTBE concentrations at the wells.

14. In the Rebuttal Report, I provided an extensive analysis as to why the dispersivity value used in the original model was scientifically valid. *See* Rebuttal Report, Section 3.0. In addition, rather than simply debate this issue in the abstract, I tested Dr. Driscoll's hypothesis that a lower dispersivity values would significantly change the modeling results. *See* Rebuttal Report, at 6-8, 22. In this test run, I used the dispersivity value of 70 feet, which was expressly suggested by Dr. Driscoll in his report. *See* Driscoll Report, at 52. As my Rebuttal Report states, the results of this analysis actually indicate that the dispersivity value of 70 suggested by Dr. Driscoll would result in the same peak concentration of MTBE (although it would occur two years later than the peak in the original Analysis 1) and that MTBE

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<sup>2</sup> The first and second paragraph of Section 3.0 (which defendants seek to exclude) also discuss the dispersivity issue that is discussed in Section 8.2. The first paragraph of Section 3.0 merely summarizes the defense experts comments on the lower dispersivity values. The second paragraph outlines the analysis that I more fully describe in Section 8.2.

concentrations would actually remain *higher* than they would under my original analysis. See Rebuttal Report, Figure 6.

15. To be clear, Additional Analysis 1 by no means was intended to modify, change or alter my original methodology, including the original dispersivity value, which I continue to believe is appropriate. The only reason I conducted this analysis was to demonstrate that a five-fold reduction in the dispersivity value *as suggested by defendants' experts* would not significantly affect the level and duration of MTBE concentrations at Station 6. In other words, my Additional Analysis 1 with the lower dispersivity value simply responded to a hypothetical situation posed by *defendants' experts* in their reports.

(ii) Section 8.3 (*Revised Analysis 2 Run*)

16. Much of defendants' criticism centers on my decision to re-run Analysis 2 with an additional 19 gasoline release sites located in or near the Station 6 capture zone. Defendants also criticize my decision to refine the method in which plumes were released from the sites modeled under Analysis 2. Both of these modifications to Analysis 2 were responses to comments made by *defendants' experts' reports* and neither of these changes altered either my methodology or opinions regarding the extent and duration of future contamination at Station 6.

17. With respect to the addition of 19 gasoline release sites, in my initial report, I made clear that while Analysis 2 modeled 37 gasoline spills from 22 locations, "[i]t should be noted that there are many additional sites at which the file information indicated that discharges of gasoline also likely occurred." See Initial Report, p. 9. At the time I drafted my initial report, it was my conclusion that "insufficient information was available about these sites to conclude that potentially significant discharges had occurred." *Id.* It should be noted that in addition to additional known release sites within the Station 6 capture zone, it is likely that

additional, unreported MTBE sources are present in the Station 6 capture zone. Thus, all known or unknown release sites were not included and it was my opinion that “the omission of such additional sites represents a conservative aspect of the approach in this analysis in terms of potential MTBE impacts at Station 6.” *Id.*

18. Several defense experts took issue with my decision not to include all known and/or unknown release sites in Queens, indicating that it was a result of selection bias. For instance:

- Defense expert Thomas Maguire stated, “as noted by Plaintiff’s experts, if releases of petroleum fuels containing MTBE (i.e. gasoline, diesel fuel, and heating oil) have not been reported or investigated, they have not been considered in the analysis. To this end, the method is subject to selection bias; specifically, to the extent releases were not contained in information resources relied upon by Cohen/Bell and Terry.” *See* Maguire Report, at 4. Similarly, Mr. Maguire later states, “[S]ites (including those with registered USTs) located with and/or adjacent to the composite capture zone that do not have reported gasoline spills (including City of New York facilities) could have had discharges of gasoline or other petroleum products containing MTBE (diesel and fuel oil). For this reason, the ‘inventory’ of potential sources assembled by Cohen/Bell and Terry represents a censored data set and is therefore subject to selection bias.” *See* Maguire, at 12.
- Defense expert Nicole T. Sweetland stated “Mr. Terry did not include in Analysis 2 other relevant sites located within this area where MTBE has been detected in groundwater and/or soil, including the 103<sup>rd</sup> Police Precinct, 113<sup>th</sup>



Precinct, and Station 24.” Ms. Sweetland then summarized her review of these three City sites, and concluded “*In order to be consistent with his own methodology, Mr. Terry should include any known sites of MTBE release in his analysis if they fall within his calculated capture zone.*” See Sweetland, at 18 (emphasis added).

- Defense expert Fletcher Driscoll stated that “Terry also failed to model at least 18 spills at City-owned sites within his model area that had confirmed or likely MTBE concentrations in groundwater.” See Driscoll Report, at 51. See also Expert Report of David Nicholls, at 19 – 21.
- Defense expert James Schaeffer stated that “Ground-water quality throughout the region is of poor quality attributable to hundreds of point sources of contamination including the release from over 1,000 petroleum spill sites and of which the majority of these documented spills released MTBE to the surface and/or subsurface. MTBE is ubiquitous in the Region’s shallower aquifers.” See Schaeffer, at 14, Opinion # 1. Furthermore, with respect to the Station 6 capture zone, Mr. Schaeffer singled out a number of specific petroleum release sites that he deemed significant, and included on this list a catch-all category of “Numerous petroleum releases resulting in urban background MTBE contamination.” See Schaeffer, at 29. Mr. Schaeffer concludes his report by stating “MTBE is ubiquitous in the study Region’s shallow aquifers.” See Schaeffer, at 31.

19. Collectively, I interpreted these comments to mean that defendants’ experts believed I had not adequately considered the impact of known and/or unknown sources

in the Station 6 or defendant well capture zones. While I had indicated in my Initial Report my opinion that there were other known or unknown sources within the capture zones, and that “the presence of additional sites in which significant releases occurred would add additional mass to the groundwater system which is not explicitly represented in the model,” to respond to defendants, I rebutted defendants’ comments by conducting a supplemental review “to include all sites in the estimated Station 6 capture zone within the Toxics Targeting database with evidence demonstrating a significant gasoline discharge had occurred.” See Rebuttal Report, at 22.

20. Of the nineteen additional sites included in Revised Analysis 2, data from eight of the sites had been used in my Initial Report in Analysis 1. See Rebuttal Report, at 22-23. Additionally, I also included some of the publicly-owned facilities that Defendants claimed should have been included in Analysis 2. As I had anticipated in my initial report, including additional gasoline releases in Analysis 2 had the effect of increasing the mass of MTBE in the model domain, and thus increasing the future influent concentration at Station 6.

21. To be clear, while I did include additional spills in the Station 6 capture zone in my Rebuttal Report, I did so *to address defendants’ experts, and the underlying methodology and my overall opinion remain unchanged*: due to a large number of gasoline releases with MTBE in its capture zone, Station 6 will continue to be impacted by significant concentrations of MTBE for an extended time.

(iii) *Allegations Regarding Plume Characteristics in Analysis 2*

22. In addition to criticizing the use of additional stations, defendants also criticize the Revised Analysis 2 by alleging that I changed my earlier assumptions “about the character of each hypothetical MTBE plume and also changed [my] prior inputs for critical

modeling variables including the 'head' and 'saturated thickness' data inputs." *See* Defendants' Letter, at 4. With respect to the character of the plumes, this again was done in direct response to comments by a defense expert. Mr. Maguire alleged that the sources in Analysis 2 "appear to have been represented as instantaneous (slug) releases." *See* Maguire Report, at 15. Mr. Maguire indicated that this would result in overestimations of concentrations at Station 6. Similar to my approach regarding the defense experts' comments on dispersivity, I decided that, rather than debate Mr. Maguire's hypothetical in the abstract, I would use his approach to determine if it did result in any significant change in the modeled results. *See* Rebuttal Report, at 23. As with my conclusions regarding dispersivity, I concluded that Mr. Maguire's approach to modeling the release would not have an impact on my overall conclusions regarding expected future concentrations at Station 6.

23. For two of the Stations, identified as S6-014 and S6-015, in the Rebuttal Report, I corrected two conversion errors from the original Analysis 2 table for saturated thickness. Station S6-014 was assigned a saturated thickness of 2.89 meters instead of the correct value of 28.89 meters due to a decimal shift. Station S6-015 utilized an incorrect bottom elevation, and was assigned a saturated thickness of 32.64 meters instead of the correct value of 21.65 meters. This error was corrected in Revised Analysis 2. The remaining values utilized in Revised Analysis 2 were recalculated from the flow model files but were very close to or identical to the values use in the initial Analysis 2.

24. Defendants imply that the estimated future capture zone for Station 6 was expanded between my Initial Report and by Rebuttal Report. *See* Defendants' Letter, at 4. This is simply not true – the same estimated Station 6 capture zone area was used throughout both analyses.

(iv). *Section 8.4 (Drought Simulations for Defendant Focus Wells)*

25. The defendants have criticized my decision to include additional modeling for defendant focus Wells 5 and 22 because they claim I modified key data inputs, abandoned my reliance on the initial modeling runs using ATRANS, and introduced two entirely new drought simulations. Yet again, my decision to include modeling for Drought Simulations for the Defendant Focus Wells in my rebuttal report was based on defense experts' criticisms.

26. My decision to include modeling of drought simulations in the Rebuttal Report was largely based on certain criticisms raised by defendants' expert John Connor. *See* Expert Report of John Connor, dated March 9, 2009, at 7. Mr. Connor argued that it was unreasonable to assume that pumping in Well 22 would begin in 2009. Specifically, Mr. Connor stated that "the assumption that Well 22 will be activated in 2009 or at any future date so as to result in an MTBE impact is contrary to the actual water management plans and existing infrastructure at this location." *See* Connor Report, at 7. Mr. Connor continued that, "if biodegradation and source depletion were appropriately considered, one would expect Mr. Terry's model to predict even lower MTBE effects on Well 22 for later activations dates than were predicted for the hypothetical 2009 activation date." *Id.*

27. In understanding the drought simulation, it is first critical to note that I do not agree with Mr. Connor's interpretation of the City's water management plans. As explained further in the expert report of Donald Cohen and Marnie Bell submitted by the City, the New York City Drought Management Plan calls for the use of the groundwater well system in the event of drought conditions. It is my understanding through reading reports from Malcolm Pirnie, the City's consultant, and other information provided to me that the City upgraded a number of groundwater wells, including Well 22, in 2002 and 2003 precisely for that purpose.

In developing my drought simulation, I consulted with Malcolm Pirnie, who I understand consulted with the City Department of Environmental Protection to identify the current list of wells that DEP would use in the event of a drought, or for that matter, another disruption of the City's upstate reservoir system. These wells and their pumping capacities are listed in my Rebuttal Report on page 24. The results of the drought simulation for Station 22 indicates that substantially higher MTBE concentrations will be drawn into Well 22.

28. My Rebuttal Report also includes a drought simulation for Well 5, which would also be activated by the City in the event of a drought or supply shortage. As explained further in my Rebuttal Report, the drought simulation for Well 5 indicates substantially lower concentrations of MTBE than were present under the steady-state WHPA approach contained in my Initial Report. *See* Rebuttal, at 26. Even though none of the defendants raised issues regarding the assumed pumping scenarios for Well 5, I felt that it was important to fully disclose the results of the Well 5 drought simulation in my Rebuttal Report even though the outcome was not necessarily favorable to the City's position in this lawsuit.

29. My staff and I began the process of running the drought simulations several weeks before the defendants submitted their expert reports because it was anticipated that the pumping scenarios used for the defendant wells would be challenged by defendants, and we needed more than the two weeks we had to prepare the Rebuttal Report perform the model simulations. If defendants had not raised issues regarding the pumping scenarios used for defendants' wells, we would not have included the drought simulations in our Rebuttal Report.

30. To perform the drought simulations, I utilized the same model described in my Initial Report for the Station 6 Analyses 1 and 2. In order to use this approach, I identified gasoline discharge locations in the vicinity of the capture zones for Wells 5 and 22, and

developed simulated plumes using ATRANS for a 2,000 gallon release scenario at each location. In performing this analysis, I utilized data regarding the saturated thickness of the Upper Glacial Aquifer as determined from the model at the source location for each station.

31. The defendants assert that I made changes in certain modeling parameters in representing certain discharge sites between the original ATRANS analysis and the drought analysis I performed using the numerical transport model, including velocity, head and saturated thickness. *See* Defendants' Letter, Exhibit "D." Several such changes were made for the following reasons. For two of the Stations, identified as D-001 and D-005, the locational information for the sites was updated since my initial report. Station D-001 was reported in one database as being located at 202-06 Hillside Avenue, but this site is actually located at 206-02 Hillside Avenue. Therefore, this location was altered for the Rebuttal Report analysis, and the saturated thickness value was calculated for the new location (which we obtained from model cell 145:183:1). Station D-005 was originally reported at 118-02 Queens Boulevard, but this site is actually located at 118-10 Queens Boulevard Avenue (we obtained this value from model cell 141:142:1). Finally, as the drought simulation used a different pumping scheme than my original the WHPA approach, I recalculated the ground water velocities for the drought simulation using forward particle tracking representing a three-year average velocity between the discharge site and the receptor well. The remaining values were recalculated but were essentially equivalent to the values used in the original analysis.

(v). *Section 8.1 ("Revised Analysis I Run")*

32. The defendants allege that, in Section 8.1 of my Rebuttal Report, I changed my "prior assumption about the maximum MTBE concentrations at certain stations" and altered my "analysis to re-draw a completely new contaminant boundary to capture new

potential future sources.” Defendants’ Letter, at 4. I acknowledge that Section 8.1 was not intended to rebut any of defendants’ specific comments. Instead, the purpose of Section 8.1. was to make minor corrections that I considered necessary to make to the original Analysis 1 run. As Section 8.1 explains, these changes did not constituted a change in my underlying methodology, did not alter my opinion that Station 6 will continue to be impacted by significant concentrations of MTBE for a significant time.

33. The first change was to extend an existing contour line on the 2004 input concentration map used in analysis so that it encompassed New York City Water Supply Well 6D, which had MTBE detections greater than 100 ppb in the baseline year 2004. The existing 100 ppb contour line was extended by no greater than 300 feet to encompass this well, adding about 17 kg of MTBE to the model domain.

34. The second change was to correct an error in the MTBE concentration detected at 113-04 Merrick Boulevard, one of the gasoline service stations within the Station 6 capture zone. After my report was submitted, my staff and I conducted a quality control review of the monitoring well data used as inputs into Analysis 1. In conducting this review, we noticed that the value used as an input concentration for this station – 78,802 ppb – was actually the concentration of total VOC’s detected at the site. The concentration of MTBE detected at the site was 65,900 ppb. This change had the overall effect of reducing the MTBE mass to the model domain by about 687 kg.

35. In addition to these two changes, we discovered additional data for the station at Citgo/Atlas Station at 108-46 Merrick Blvd for 2004 baseline year. In the original analysis, we had identified data only for 2008 from this location. For the Revised Analysis 1, we utilized the additional 2004 value of 89 ppb for the baseline interval. We then also used the

original 2008 data of 230 ppb to the 2008 time interval in conducting the revised simulation, precisely as was done in the original Analysis 1. While I did not specifically reference this correction in my expert report, this change had the overall effect of adding about 6 kg of MTBE to the model domain.

36. These are the only changes to MTBE concentrations that I made for Revised Analysis 1, and the net effect of these changes was to reduce the overall MTBE mass in the model domain by about 664 kg. Correcting these discrepancies had very minor impacts on the output of the Analysis 1 model run; the peak concentration of 35 ppb now occurs in 2026, as compared to 2024 in the original model simulation. I disclosed this minor change in both the narrative section of the report and in Figure 5, which compared both breakthrough curves. It should also be noted that all of the modeling files have been produced to the defendants for their review.

(v). *Correction to Initial Report*

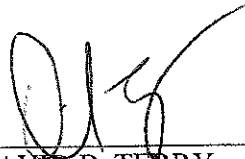
37. In reviewing the information about heads and saturated thickness inputs used in Analysis 2, I discovered that an outdated and incorrect draft version of Table 4 of my report was inadvertently included in the final report. However, the model files themselves, copies of which were provided to the defendants, contained the correct values for these parameters. A spreadsheet file from which the actual Analysis 2 was performed was, however, provided to defendants on the March 23, 2009 Production "New Jersey" Hard Drive as file: \MODEL-NJLBG Models\Stn 6 - Analysis 2\ATRANS runs\critical\_site\_plume.xls).

**C. Conclusion**

38. I have not changed my opinions, models and methodology changed since I submitted my Initial Report. Any new modeling scenario results presented in my rebuttal report either rebutted specific comments made by one or more of the defendants' 10 experts or



made minor corrections to my original analysis. The City's groundwater well system is located in a highly urbanized area with a large number of petroleum spills from many different sources, both public and private. My analysis, which is based on generally accepted hydrologic models and which has remained consistent throughout, indicates that, when the City activates its Station 6 treatment plant in 2016, it will be impacted by high levels of MTBE for a prolonged time.



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DAVID B. TERRY